

## ABSTRACT

It is an object of the invention to provide a droplet ejection apparatus and a method of judging an ejection failure in droplet ejection heads which can judge an ejection failure in the droplet ejection heads and a cause thereof based on a subtraction result obtained by subtracting the number of pulses in a signal, which oscillates in response to changes in an electric capacitance component of an actuator after a droplet ejection operation. A droplet ejection apparatus of the invention includes: a plurality of droplet ejection heads, each of the droplet ejection heads including a diaphragm 121, an electrostatic actuator 120 which displaces the diaphragm 121; a driving circuit which drives the actuator 120; oscillation circuit 11 which generates a signal on the basis of a residual vibration of the diaphragm 121 after driving the actuator 120 by the driving circuit 18; subtraction counter 45 which subtracts the number of pulses, which are included in the signal generated by the oscillation circuit 11 for a predetermined time period, from a predetermined reference value; and judging means 20 for judging whether or not an ejection failure is occurring in the droplet ejection heads on the basis of the subtraction result by the subtraction counter 45.